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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/716,136	11/17/2000	Peter A. Barany	NORT0070US(12011RRUS02U)	8662

21906 7590 02/23/2005

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ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/716,136	BARANY ET AL.	
	Examiner	Art Unit	
	Kevin Mew	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) *2,7,24, 42-43* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6,8,9,11-23,25-30,32-41 and 44-51* is/are rejected.

7)☒ Claim(s) *10,31 and 52* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

1. Applicant's arguments filed on 7/19/2004 regarding claims 1, 3-6, 8-23, 25-41, 44-46 have been considered and are currently pending. Claims 47-52 are newly added. Claims 2, 7, 24, 42-43 have been canceled by the Applicant.

Claim Objections

2. Claim 46 is objected to because of the following informalities: the term "to" in "to the first mobile station to a second mobile station" in line 6 of the claim should read as "from". The Applicant is silent about this claim objection as cited in the previous Office Action. Appropriate correction is required.

3. Acknowledgement is made of the renumbering of claims 44-48 to 42-46, respectively as cited in the previous Office Action. The corrections are acceptable and the claim objections with respect to the claim numbering has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3-6, 8-9, 11-17, 21-23, 25-30, 32, 39-41, 44-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al. (US Publication 2001/0040883).

Regarding claim 1, Chang discloses a method of communicating in a mobile communications system (**method for flexible multiplexing of real-time and non-real-time services over a wireless data communication systems**, see lines 1-5, paragraph 0010), comprising:

detecting that a first mobile station (**mobile station 20**, see lines 20, paragraph 0045, and Fig. 1) has stopped transmitting traffic containing real-time, interactive data on a first channel portion (**channels for delivery of voice and real-time data services are inefficient due to significant periods of dead time during a typical flow**, see lines 1-7, paragraph 0068); and

multiplexing traffic from a second mobile station (**mobile station 30**, see Fig. 1) on the first channel portion (**statistical multiplexing of traffic channel resources to increase overall capacity**, see lines 7-10, paragraph 0068) during a period in which the first mobile station is not transmitting traffic (**for voice service with a voice factor approximately 40%,** see lines 7-10, paragraph 0068); and

receiving a request from the first mobile station for re-allocation of the first channel portion (**receiving a request from a mobile station for uplink traffic channel**, see entire paragraph 0328), the request indicating that the first mobile station is about to start transmitting traffic (**a burst-based contention access procedure allows a MS camped on the RT control channel to signal for uplink resource whenever an uplink traffic flow transitions from inactive to active, e.g. when the next talk spurt starts for a speech user**, see lines 3-7, paragraph 0159),

wherein the request contains a coded version (**including ARI**) of an identifier (**TBFI**) associated with the first mobile station (**ARI is included with TBFI for fast contention resolution**, see entire paragraphs 0308 and 0189).

Regarding claim 3, Chang discloses the method of claim 2, further comprising allocating the first channel portion back to the first mobile station in response to the request (**fast reassignment provides the network the ability to reallocate resources**, see lines 13-16, paragraph 0159).

Regarding claim 4, Chang discloses the method of claim 14, wherein detecting that the first mobile station has stopped transmitting traffic (**channels for delivery of voice and real-time data services are inefficient due to significant periods of dead time during a typical flow**, see lines 1-7, paragraph 0068) comprises detecting that the first mobile station has entered a discontinuous transmission mode (**for voice service with a voice activity factor approximately 40%**, see lines 7-8, paragraph 0068).

Regarding claim 5, Chang discloses the method of claim 4, wherein detecting that the first mobile station has entered discontinuous transmission mode (**significant periods of dead time during a typical flow**) comprises receiving a predetermined message (**voice activity factor**) indicating that the mobile station is entering the discontinuous transmission mode (**for voice service with a voice activity factor approximately 40%**, see lines 7-8, paragraph 0068).

Regarding claim 6, Chang discloses the method of claim 14, wherein multiplexing the second mobile station traffic comprises receiving the second mobile station traffic on a predetermined time slot of a frame (**a time division multiplexed communication method and system in which time is divided into a number of frames and each frame is divided into N data bursts; mobile station 30 has a multiplexer in which a full rate channel is formed as two half rate channels on consecutive timeslots**, see lines 1-3, 6-8, abstract and lines 20-21, paragraph 0045), the channel portion comprising the predetermined time slot (**full rate channel is formed as two half rate channels on consecutive timeslots**, see lines 6-8, abstract).

Regarding claim 8, Chang discloses the method of claim 14, wherein receiving the request comprises receiving a request (**burst access request**) that is one burst in length (**single burst access scheme**, see line 13, paragraph 0159).

Regarding claim 9, receiving the request comprises receiving a request that coincides with traffic from the second mobile station (**each mobile station is contending with one another during access on the RT control channels**, see entire paragraph 0189).

Regarding claim 11, Chang discloses the method of claim 8, wherein receiving the request comprises receiving a request that is based on an identifier associated with the mobile station (**mobile's Access Request Content includes Access Request Identifier, ARI, UMT (Uplink Message Type), and Temporary Block Flow Identifier**, see lines 7-8, paragraph 0159 and Access Request Message Content in Fig. 10).

Regarding claim 12, Chang discloses the method of claim 11, wherein the identifier comprises a temporary flow identifier (**see TBFI in Fig. 10** and paragraph 0023).

Regarding claim 13, Chang discloses a method of communicating in a mobile communications system, comprising:

detecting that a first mobile station (**mobile station 20**, see lines 20, paragraph 0045, and Fig. 1) has stopped transmitting traffic containing real-time, interactive data on a first channel portion (**channels for delivery of voice and real-time data services are inefficient due to significant periods of dead time during a typical flow**, see lines 1-7, paragraph 0068); and

multiplexing traffic from a second mobile station (**mobile station 30**, see Fig. 1) on the first channel portion (**statistical multiplexing of traffic channel resources to increase overall capacity**, see lines 7-10, paragraph 0068) during a period in which the first mobile station is not

transmitting traffic (**for voice service with a voice factor approximately 40%,** see lines 7-10, paragraph 0068); and

receiving the request from the first mobile station for the channel portion (**mobile's Access Request Identifier, ARI, is transmitted in the access burst**, see lines 7-8, paragraph 0159), the request indicating that the first mobile station is about to start transmitting traffic (**a burst-based contention access procedure allows a MS camped on the RT control channel to signal for uplink resource whenever an uplink traffic flow transitions from inactive to active**, see lines 3-6, paragraph 0159);

wherein receiving the request comprises receiving a request that is one burst in length (**all access requests are single-bursts messages**, see paragraph 0187).

wherein receiving the request comprises receiving a request that is based on an identifier associated with the mobile station (**the request is based on TBFI that is associated with the mobile station**, see entire paragraph 0308),

wherein receiving the request comprises receiving a request that contains a coded version of the identifier, the coded version having a length that is longer than the identifier (**ARI together with TBFI is interpreted the coded version of the temporary flow identifier and thus the length of ARI and TBFI together is longer than the length of TBFI alone**, see entire paragraph 0308).

Regarding claim 14, Chang discloses a method of communicating in a mobile communications system, comprising:

detecting that a first mobile station (**mobile station 20**, see lines 20, paragraph 0045, and Fig. 1) has stopped transmitting traffic containing real-time, interactive data on a first channel portion (**channels for delivery of voice and real-time data services are inefficient due to significant periods of dead time during a typical flow**, see lines 1-7, paragraph 0068); and

multiplexing traffic from a second mobile station (**mobile station 30**, see Fig. 1) on the first channel portion (**statistical multiplexing of traffic channel resources to increase overall capacity**, see lines 7-10, paragraph 0068) during a period in which the first mobile station is not transmitting traffic (**for voice service with a voice factor approximately 40%,** see lines 7-10, paragraph 0068); and

receiving the request from the first mobile station for the channel portion (**mobile's Access Request Identifier, ARI, is transmitted in the access burst**, see lines 7-8, paragraph 0159), the request indicating that the first mobile station is about to start transmitting traffic (**a burst-based contention access procedure allows a MS camped on the RT control channel to signal for uplink resource whenever an uplink traffic flow transitions from inactive to active**, see lines 3-6, paragraph 0159);

wherein receiving the request comprises receiving a request during a period in which the second mobile station is transmitting traffic in the first channel portion (**each mobile station is contending with one another during access request to the network**, see entire paragraph 0189).

Regarding claim 15, Chang discloses the method of claim 7, further comprising sending an assignment message to the first mobile station (**see Assign UTCH Content in Fig. 9 and**

paragraph 0022, and single-burst assignment messages in the downlink, lines 10-11, paragraph 0159).

Regarding claim 16, Chang discloses the method of claim 15, wherein sending the assignment message comprises sending a one-burst assignment message (**the network includes ARI in single-burst fast assignment messages in the downlink**, see lines 10-11, paragraph 0159).

Regarding claim 17, Chang discloses a method of communicating in a mobile communications system, comprising:

detecting that a first mobile station (**mobile station 20**, see lines 20, paragraph 0045, and Fig. 1) has stopped transmitting traffic containing real-time, interactive data on a first channel portion (**channels for delivery of voice and real-time data services are inefficient due to significant periods of dead time during a typical flow**, see lines 1-7, paragraph 0068); and

multiplexing traffic from a second mobile station (**mobile station 30**, see Fig. 1) on the first channel portion (**statistical multiplexing of traffic channel resources to increase overall capacity**, see lines 7-10, paragraph 0068) during a period in which the first mobile station is not transmitting traffic (**for voice service with a voice factor approximately 40%,** see lines 7-10, paragraph 0068); and

receiving the request from the first mobile station for the channel portion (**mobile's Access Request Identifier, ARI, is transmitted in the access burst**, see lines 7-8, paragraph 0159), the request indicating that the first mobile station is about to start transmitting traffic (**a**

burst-based contention access procedure allows a MS camped on the RT control channel to signal for uplink resource whenever an uplink traffic flow transitions from inactive to active, see lines 3-6, paragraph 0159);

sending an assignment message to the first mobile station (sending a single burst assignment message),

wherein sending the assignment message comprises sending a plural-burst assignment message (multiple burst-based assignment sequences in a single burst message, see entire paragraph 0217).

Regarding claim 21, Chang discloses a system for use in a mobile communications system (**GERAN, GSM EDGE Radio Access Network**, see lines 1-4, paragraph 0051), comprising:

a wireless interface (see Fig. 1) adapted to communicate over a wireless channel portion with a first mobile station (**see mobile station 20**, Fig. 1); and

a controller (**see Base Station**, Fig.1) adapted to detect if the first mobile station has entered into a discontinuous transmission mode (**significant periods of dead time during a typical flow**) and to allocate the wireless channel to another mobile station when the first mobile station is in the discontinuous transmission mode (**for voice service with a voice activity factor approximately 40%, there is considerable potential to increase overall capacity with statistical multiplexing of traffic channel resources**, see lines 3-9, paragraph 0068, and Fig. 1),

wherein the controller is adapted to further detect a request from the first mobile station for re-allocation of the channel portion back to the first mobile station (**receiving a request from**

a mobile station for uplink traffic channel, see entire paragraph 0328), the request contains a coded version (**including ARI**) of an identifier (**TBFI**) associated with the first mobile station (**ARI is included with TBFI for fast contention resolution**, see entire paragraphs 0308 and 0189);

Regarding claim 22, Chang discloses the system of claim 21, wherein the wireless channel portion (**a half-rate channel is formed**) includes a time slot of a frame having plural time slots (**a time slot is allocated to a full-rate or half-rate voice or data traffic channel/TBF**, see lines 6-9, paragraph 0156, and lines 3-5, paragraph 0157).

Regarding claim 23, Chang discloses the system of claim 32, further comprising a multiplexer to receive traffic from the first mobile station when the first mobile station is in an active mode (**base station 12 has multiplexer to multiplex speech and/or data traffic to form channels and sub-channels**, see lines 10-14, paragraph 0045) and to receive traffic from the other mobile station when the first mobile station is in the discontinuous mode (**for voice service with a voice activity factor approximately 40%, there is considerable potential to increase overall capacity with statistical multiplexing of traffic channel resources**, see lines 1-10, paragraph 0068).

Regarding claim 25, Chang discloses the system of claim 32, wherein the request comprises a request carried in a General Packet Radio Service Real-Time Fast Associated

Control Channel (**the access burst request is on a GPRS RT fast access control channel**, see lines 1-4, paragraph 0185, and lines 1-2, paragraph 0187 and lines 1-8, paragraph 0189).

Regarding claim 26, Chang discloses the system of claim 25, wherein the request comprises a Real-Time Fast Associated Control Channel resource request message (**access burst request is on a RT fast access control channel**, see lines 1-4, paragraph 0185, and lines 1-2, paragraph 0187 and lines 1-8, paragraph 0189).

Regarding claim 27, Chang discloses the system of claim 32, wherein the controller is adapted to further send an assignment message to the first mobile station in response to the request (**the base station responds by sending a single burst assignment message including the ARI**, see lines 5-8, paragraph 0189).

Regarding claim 28, Chang discloses the system of claim 21, wherein the request has a length of one time slot of a frame (**single burst access request message**, see line 14, paragraph 0159).

Regarding claim 29, Chang discloses the system of claim 32, wherein the request is based on an identifier (**TBFI**) associated with the first mobile station (**mobile's access burst request message comprises TBFI**, see Fig. 10).

Regarding claim 30, Chang discloses the system of claim 29, wherein the request is a coded version of the identifier associated with the first mobile station (**RT TBF is enhanced to support RT services and each RT TBF has an associated TBF profile**, see lines 1-2, 5, paragraph 0241).

Regarding claim 32, Chang discloses a system for use in a mobile communications system, comprising:

a wireless interface (**base station**) adapted to communicate over a wireless channel portion with a first mobile station (**mobile stations**, see Fig. 1).

a controller (**base station**) adapted to detect if the first mobile station has stopped transmitting traffic (**channels for delivery of voice and real-time data services are inefficient due to significant periods of dead time during a typical flow**, see lines 1-7, paragraph 0068) and to allocate the wireless channel to another mobile station when the first mobile station has entered a discontinuous transmission mode (**statistical multiplexing of traffic channel resources to increase overall capacity when voice service with a voice activity factor is approximately 40% full**, see lines 7-10, paragraph 0068);

wherein the controller (**base station**) is adapted to detect a request from the first mobile station for re-allocation of the first channel portion (**receiving a request from a mobile station for uplink traffic channel**, see entire paragraph 0328),

wherein the controller (**base station**) is adapted to receive the request at the same time the controller is receiving traffic from the other mobile station (**base station receives request**

from each mobile station that is contending with one another during access request to the network, see entire paragraph 0189).

Regarding claim 39, Chang discloses a system for use in a mobile communications system (**GERAN, GSM EDGE Radio Access Network**, see lines 1-4, paragraph 0051), comprising:

a wireless interface adapted to communicate over a wireless channel portion with a first mobile station and a second mobile station (**see wireless interface between mobile stations and base station**, Fig. 1); and

a controller (**base station**) adapted to allocate the channel portion to the second mobile station when the first mobile station is silent (**a base station is adapted to increase overall capacity with statistically multiplexing of traffic channel resources for voice service with a voice activity factor approximately 40%,** see lines 4-10, paragraph 0068) and to receive a request from the first mobile station for allocation of the channel portion (**a burst-based contention access procedure allows a MS to camp on the RT control channel to signal for uplink resource whenever an uplink traffic flows from inactive to active**, see lines 3-7, paragraph 0159) while concurrently receiving traffic from the second mobile station (**multiplex traffic for both mobile stations 20 and 30**, see Fig. 1 and lines 12-14, paragraph 0045), wherein the received request overlaps traffic from the second mobile station (**each mobile station is contending with one another during access request to the network**, see entire paragraph 0189).

Regarding claim 40, Chang discloses the system of claim 39, wherein the channel portion comprises a time slot of a frame having plural time slots (**a time slot is allocated to a full-rate or half-rate voice or data traffic channel/TBF**, see lines 6-9, paragraph 0156, and lines 3-5, paragraph 0157).

Regarding claim 41, Chang discloses the system of claim 39, wherein the request comprises a General Packet Radio Service Real-time Fast Associated Control Channel message (**the access burst request is a GPRS RT fast access control channel**, see lines 1-4, paragraph 0185, and lines 1-2, paragraph 0187 and lines 1-8, paragraph 0189).

Regarding claim 44, Chang discloses an article comprising at least one storage medium (Base Station, see Fig. 1) containing instructions for communicating in a mobile communications network (**GERAN, GSM EDGE Radio Access Network**, see lines 1-4, paragraph 0051), the instructions when executed causing a system to:

detect a first mobile station entering discontinuous transmission mode (**significant periods of dead time during a typical flow**), the first mobile station assigned a channel portion to communicate traffic (**a half-rate channel is formed as a series of bursts that occur periodically every N bursts once per frame**, see lines 4-6, abstract); and

multiplex traffic from a second mobile station onto the channel portion during a time period in which the mobile station is in discontinuous transmission mode (**for voice service with a voice activity factor approximately 40%, there is considerable potential to increase**

overall capacity with statistical multiplexing of traffic channel resources, see lines 3-9, paragraph 0068, and Fig. 1).

Regarding claim 45, Chang discloses an article comprising at least one storage medium containing instructions for communicating in a mobile communications network, the instructions when executed causing a system to:

detect a first mobile station entering discontinuous transmission mode (**significant periods of dead time during a typical flow**), the first mobile station assigned a channel portion to communicate traffic (**a half-rate channel is formed as a series of bursts that occur periodically every N bursts once per frame**, see lines 4-6, abstract); and

multiplex traffic from a second mobile station onto the channel portion during a time period in which the mobile station is in discontinuous transmission mode (**for voice service with a voice activity factor approximately 40%, there is considerable potential to increase overall capacity with statistical multiplexing of traffic channel resources**, see lines 3-9, paragraph 0068, and Fig. 1).

receive a request from the first mobile station for a re-allocation of the channel portion (**a burst-based contention procedure allows a MS camped on the RT control channel to signal for uplink resource whenever an uplink traffic flow transitions from inactive to active**, see lines 3-7, paragraph 0159; **fast reassignment provides the ability to reallocate resources**, see lines 13-16, paragraph 0159); and

receive the request from the first mobile station that overlaps traffic from the second mobile station (**each mobile station is contending with one another during access request to the network**, see entire paragraph 0189).

Regarding claim 44, Chang discloses the article of claim 45, wherein the channel portion comprises a time slot of a frame having plural time slots (**a time slot is allocated to a full-rate or half-rate voice or data traffic channel/TBF**, see lines 6-9, paragraph 0156, and lines 3-5, paragraph 0157).

Regarding claim 46, Chang discloses a data signal embodied in a carrier wave (**a burst-based contention access procedure**, see lines 3-4, paragraph 0159) and comprising instructions for communicating in a mobile communications network (**GERAN, GSM EDGE Radio Access Network**, see lines 1-4, paragraph 0051), the instructions when executed causing a system to:

receive an indication that a first mobile station is entering discontinuous transmission mode (**for voice service with a voice activity factor approximately 40%,** see lines 8-11, paragraph 0068);

allocate a channel portion assigned from the first mobile station to a second mobile station (**a base station is adapted to increase overall capacity with statistically multiplexing of traffic channel resources for voice service with a voice activity factor approximately 40%,** see lines 4-10, paragraph 0068);

receive traffic from the second mobile station during a time period in which the first mobile station is in discontinuous transmission mode (**statistically multiplexing of traffic**

channel resources for voice service with a voice activity factor approximately 40%, see lines 2-10, paragraph 0068);

receive a request from the first mobile station for re-allocation of the first channel portion (**receiving a request from a mobile station for uplink traffic channel**, see entire paragraph 0328, **a burst-based contention access procedure allows a MS camped on the RT control channel to signal for uplink resource whenever an uplink traffic flow transitions from inactive to active, e.g. when the next talk spurt starts for a speech user**, see lines 3-7, paragraph 0159),

wherein the request contains a coded version (**including ARI**) of an identifier (**TBFI**) associated with the first mobile station (**ARI is included with TBFI for fast contention resolution**, see entire paragraphs 0308 and 0189).

Regarding claim 47, Chang discloses the method of claim 1, wherein the coded version of the temporary flow identifier being longer in length than the temporary flow identifier (**ARI together with TBFI is interpreted the coded version of the temporary flow identifier and thus the length of ARI and TBFI together is longer than the length of TBFI alone**, see entire paragraph 0308).

Regarding claim 48, Chang discloses the method of claim 47, wherein the identifier comprises a temporary flow identifier (**TBFI**), and wherein the coded version of the temporary flow identifier is longer in length than the temporary flow identifier (**ARI together with TBFI is**

interpreted the coded version of the temporary flow identifier and thus the length of ARI and TBFI together is longer than the length of TBFI alone, see entire paragraph 0308).

Regarding claim 49, Chang discloses the system of claim 21, wherein the coded version of the temporary flow identifier is longer in length than the temporary flow identifier (**ARI together with TBFI is interpreted the coded version of the temporary flow identifier and thus the length of ARI and TBFI together is longer than the length of TBFI alone**, see entire paragraph 0308).

Regarding claim 50, Chang discloses the data signal of claim 46, wherein the coded version of the temporary flow identifier is longer in length than the temporary flow identifier (**ARI together with TBFI is interpreted the coded version of the temporary flow identifier and thus the length of ARI and TBFI together is longer than the length of TBFI alone**, see entire paragraph 0308).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Hakansson et al. (US Publication 2004/0062274).

Regarding claim 18, Chang discloses all the aspects of the claimed invention set forth in the rejection of claim 1 above, except fails to disclose that detecting the first mobile station has stopped transmitting traffic comprises receiving a General Packet Radio Service SID_FIRST indication. However, Hakansson discloses a GSM wireless communication system in which SID_FIRST frames are transmitted immediately form a first component (Mobile Station) to a second component (Base Station) to indicate a transition from activity to inactivity (see lines 2-3, paragraph 0047, lines 1-3, paragraph 0061, and lines 13-14, 29-31, paragraph 0100). Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to combine the dynamic channel resources allocation method and system of Chang with that of Hakansson such that a silent descriptor indicator frame, SID_FIRST, would be received at the base station from the mobile station when the mobile station goes to discontinuous transmission mode, such as the SID_FIRST frame transmission taught by Hakansson. The motivation to do so is to send a silent descriptor indicator from a mobile station to a base station to notify the base station of the inactivity of the mobile station because it would allow the maximum flexibility in allocation of available resources for other mobile stations.

Regarding claim 19, Chang discloses the method of claim 18, further comprising receiving a Real-Time Fast Associated Control Channel resource request message from the first mobile station for reassignment of the channel portion (**the access burst request is on a GPRS RT fast access control channel, which is used when the next talk spurt starts for a speech user**, see lines 3-16, paragraph 0159, and lines 1-8, paragraph 0189).

Regarding claim 20, Chang discloses the method of claim 19, further comprising sending a Real-Time Fast Associated Control Channel assignment message to the first mobile station to assign the channel portion back to the first mobile station (**the assignment burst message is on a GPRS RT fast access control channel, which is used when the next talk spurt starts for a speech user**, see lines 3-16, paragraph 0159, and lines 1-8, paragraph 0189).

6. Claims 33-38, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US Publication 2004/0062274).

Regarding claim 33, Chang discloses channels for delivery of voice and real-time data services are inefficient due to significant periods of dead time during a typical flow (see lines 1-7, paragraph 0068) and that voice service with a voice activity factor approximately 40% is considered as the opportunity for increasing overall channel capacity with statistical multiplexing of traffic channel resources (see lines 7-10, paragraph 0068). Also, Chang discloses channel assignment request comprises a message that contains a ARI and TBFI (the request for re-assignment contains a coded version of an identifier associated with the mobile station, note that

ARI together with TBFI is considered as a coded version of TBFI, see entire paragraph 0308). Therefore, official notice is taken by the Examiner that it is well known in the art that a detecting means in a mobile station is used to detect when a mobile station has been inactive. The motivation to do so is to allow a mobile station to detect the inactivity of the mobile station. Chang further discloses that statistical multiplexing of traffic channel resources is performed when the voice activity of a voice service becomes approximately 40% (lines 7-10, paragraph 0068). Therefore, official notice is taken by the Examiner that it is well known in the art that a controlling means in a mobile station is used to notify the base station that a mobile station has been inactive. The motivation to do so is to allow the base station to reallocate the available resources of the inactive mobile station to other mobile stations. In addition, Chang discloses mobile access burst request message (reassignment message) is sent from a mobile station to the uplink base station when the mobile station transitions from inactive state to active state (see lines 3-10, 13-16, paragraph 0159). Therefore, official notice is taken by the Examiner that it is well known in the art that a processing/controlling means in a mobile station is used to make a reassignment message to the base station when the mobile station is entering the active state again. The motivation to do so is to allow the base station to reallocate channel resources back to the mobile station.

Regarding claim 34, Chang discloses the mobile station of claim 33, wherein the controller is adapted to send the indication according to a General Packet Radio Service protocol (**the access burst request is based on a GPRS**, see lines 3-6, paragraph 0189).

Regarding claim 35, Chang discloses the mobile station of claim 34, wherein the identifier comprises a temporary flow identifier (**mobile's burst access request content includes Access Request Identifier, ARI, Temporary Block Flow Identifier**, see lines 7-8, paragraph 0159, and see Access Request Message Content in Fig. 10), the coded version of the temporary flow identifier being longer in length than the temporary flow identifier (**ARI together with TBFI is interpreted the coded version of the temporary flow identifier and thus the length of ARI and TBFI together is longer than the length of TBFI alone**, see entire paragraph 0308).

Regarding claim 36, Chang discloses the mobile station of claim 35, further comprising a storage unit to store the temporary flow identifier (**TBF identifier (TBFI) is assigned to the MS per requested TBF**, see lines 1-2, paragraph 0245. Therefore, it is inherent that a storage means is used to store the temporary block flow identifier), the mobile station keeping the temporary flow identifier during discontinuous transmission mode (**a timer maybe associated with inactive state of the MS per RT TBF, which allows MS to be in TBF established state for a configurable time after the downlink and uplink traffic end. This avoids re-negotiation of the RT TBF profile. Therefore, it is interpreted that the mobile station keeps the temporary flow identifier during discontinuous transmission mode**, see lines 1-6, paragraph 0254).

Regarding claim 37, Chang discloses the mobile station of claim 33, wherein the controller is adapted to further receive an assignment message responsive to the request (**single**

burst assignment message is transmitted on a Fast Assignment Channel (FASSCH) to the MS, see lines 1-3, paragraph 0227. Therefore, it is inherent that a processing or controlling means is used in the MS to receive the assignment message.), and to transmit traffic on the channel portion after receiving the assignment message.

Regarding claim 38, Chang discloses the mobile station of claim 33, wherein the channel portion comprises a time slot of a frame (**a time slot is allocated to a full-rate or half-rate voice or data traffic channel/TBF**, see lines 6-9, paragraph 0156, and lines 3-5, paragraph 0157).

Regarding claim 51, Chang discloses the mobile station of claim 33, wherein the coded version of the temporary flow identifier is longer in length than the temporary flow identifier (**ARI together with TBFI is interpreted the coded version of the temporary flow identifier and thus the length of ARI and TBFI together is longer than the length of TBFI alone**, see entire paragraph 0308).

Allowable Subject Matter

7. Claims 10, 31, 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In claims 10, 31, 52, a joint detector to extract the request from a combined message including the request and the traffic from the other mobile station.

Conclusion

8. Applicant's arguments with respect to claims 1, 3-6, 8-23, 25-41, 44-51 have been considered but are moot in view of the new ground(s) of rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 703-305-5300. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 703-305-4798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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